

<b>B.L. Grant &amp; Son</b>	)	<b>Departmental</b>
<b>Penobscot County</b>	)	<b>Findings of Fact and Order</b>
<b>Corinth, Maine</b>	)	<b>Air Emission License</b>
<b>A-871-71-A-N</b>	)	<b>After-the-Fact</b>

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

## **I. REGISTRATION**

### **A. Introduction**

B.L. Grant & Son, located in Corinth, Maine, has applied for an After-the-Fact Air Emission License, permitting the operation of their rock crushers and diesel engines associated with their gravel pits.

### **B. Emission Equipment**

B.L. Grant & Son is authorized to operate the following air emission units:

#### **Rock Crushers**

<u>Designation</u>	<u>Process Rate (tons/hour)</u>	<u>Control Device</u>	<u>Date of Manufacture</u>
Primary Crusher	90	Spray Nozzles	1984
Secondary Crusher	90	Spray Nozzles	1952

#### **Diesel Units**

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Diesel #1	3.9 MMBtu/hr	28 gal/hr	550 hp
Diesel #2	1.7 MMBtu/hr	12.0 gal/hr	237 hp

### **C. Application Classification**

A new source is considered a major source based on whether or not expected emissions exceed the "Significant Emission Levels" as given in Maine's Air Regulations. This source is determined to be a minor new source and has been processed as such.

## **II. BEST PRACTICAL TREATMENT (BPT)**

### **A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources requires a demonstration that emissions are receiving Best Available Control Technology (BACT) as defined in Chapter 100 of the Air Regulations. BACT is a top down approach to selecting air emission controls considering economic, environmental and energy impacts.

### **B. Diesel Engines**

Diesel #1 was manufactured in 1989 and Diesel #2 was manufactured in 1984. The combined total fuel use in the diesel engines shall not exceed 15,000 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content of 0.05% by weight and is therefore considered to be receiving BACT.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. Chapter 106 regulates fuel sulfur content, however the use of 0.05% sulfur by weight fuel is more stringent and shall be used.
2. SO<sub>2</sub> emission data was based on fuel sulfur mass balance.
3. For Diesel #1, PM and PM<sub>10</sub> emission rates were based upon the requirements of MEDEP Chapter 103; NO<sub>x</sub>, CO and VOC emission rates were based upon AP-42 data dated 10/96 for diesel engines less than 600 hp.
4. For Diesel #2, PM, PM<sub>10</sub>, NO<sub>x</sub>, CO and VOC emission rates were based upon AP-42 data dated 10/96 for diesel engines less than 600 hp.
5. Opacity from each diesel engine shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

### **C. Rock Crushers**

The Primary Rock Crusher is a portable unit manufactured in 1984 with a rated capacity of 90 tons/hr. The Secondary Rock Crusher is a portable unit manufactured in 1952 with a rated capacity of 90 tons/hr. EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants applies to fixed rock crushers with capacities greater than 25 tons/hr and

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portable rock crushers with capacities greater than 150 tons/hr, constructed after August 31, 1983. Therefore, the Primary and the Secondary Rock Crushers are not subject to NSPS Subparts A and OOO.

A summary of the BACT analysis for particulate matter is discussed below:

Particulate emissions from the rock crusher are considered to be generally unquantifiable. Therefore, opacity is the proposed means of demonstrating compliance for the crusher and shall be limited to 10% on a six (6) minute block average basis. B.L. Grant & Son shall maintain and operate water sprays for particulate control on the rock crusher as necessary to remain below the 10% opacity limit.

#### D. Stock Piles and Roadways

BACT for all potential sources of fugitive PM emissions, including material stockpiles and roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 20 percent, except for no more than five (5) minutes in any 1-hour period.

#### E. Annual Emissions

B.L. Grant & Son has the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emissions for the Facility**  
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/yr</u>
PM	0.3
PM <sub>10</sub>	0.3
SO <sub>2</sub>	0.1
NO <sub>x</sub>	4.6
CO	1.0
VOC	0.4

### **III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, B.L. Grant & Son is below the emissions level required for modeling and monitoring.

### **ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-871-71-A-N, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

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- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

**(16) Rock Crushers**

- A. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a six minute block average. B.L. Grant & Son shall operate and maintain spray nozzles for particulate control on all rock crushers as necessary to remain below the 10% opacity limit.
- B. B.L. Grant & Son shall maintain a log detailing any maintenance on the water spray nozzles. The maintenance log shall be located at the facility whenever the facility is in operation.
- C. B.L. Grant & Son shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the rock crushers. The operation log shall be located at the facility whenever the facility is in operation.

**(17) Diesel Engines**

- A. B.L. Grant & Son shall not exceed a combined fuel use in Diesel #1 and Diesel #2 of 15,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.05% by weight. Fuel use records and receipts (showing the quantity and percent sulfur of the fuel) for the diesel engines shall be maintained to demonstrate compliance

- B. Emissions from Diesel #1 (550 HP) shall be limited to the following:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.46
PM <sub>10</sub>	n/a	0.46
SO <sub>2</sub>	n/a	0.20
NO <sub>x</sub>	n/a	17.02
CO	n/a	3.67
VOC	n/a	1.35

- C. Emissions from Diesel #2 (237 HP) shall be limited to the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.51
PM <sub>10</sub>	0.51
SO <sub>2</sub>	0.08
NO <sub>x</sub>	7.32
CO	1.58
VOC	0.58

D. Visible emissions from the each diesel engine shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

(18) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

(19) **Equipment Relocation**

A. B.L. Grant & Son shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(20) B.L. Grant & Son shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

(21) B.L. Grant & Son shall pay the annual air emission license fee within 30 days of **October 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.



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(22) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 20, 2003

Date of application acceptance: August 25, 2003

Date filed with Board of Environmental Protection: \_\_\_\_\_

This order prepared by Mark E. Roberts, Bureau of Air Quality